

## CORYNESPORA LEAF SPOT OF AZALEA AND HYDRANGEA

E. K. Sobers

The first report of *Corynespora cassiicola* (Berk. & Curt.) Wei in Florida was made by Bolick in 1960 (1). He found that the fungus was pathogenic to leaves of hydrangea, *Hydrangea macrophylla* Ser., and later reported that the disease could be controlled with applications of maneb or zineb (2). Presently, this is the most prevalent and serious leaf spotting disease of hydrangea in Florida.

In April 1965, *C. cassiicola* was found to be the cause of serious defoliation and leaf spotting of azaleas in southern Florida. Four varieties; Rentschler's Pink, Valentine, White Christmas, and White Water; have since been reported as susceptible hosts (7).

HOST RANGE.--*Corynespora cassiicola* is relatively new to the United States, It was reported for the first time in 1945 as *Helminthosporium vignae* Olive, Bain & Lefebvre, and designated as a pathogen of cowpea, *Vigna sinensis* (L.) Endl., and of soybean, *Glycine max* (L.) Merr. (4). In 1960 and 1961, the fungus was reported to be a serious pathogen of sesame, *Sesamum indicum* L.; of okra, *Hibiscus esculentus* L.; and of two species of cotton, *Gossypium hirsutum* L. and *G. barbadense* L. (3,5,6). Recent studies indicate that velvetleaf, *Abutilon theophrasti* Medic.; watermelon, *Citrullus vulgaris* Schrad.; guar, *Cyamopsis tetragonoloba* (L.) Taub.; white lupine, *Lupinus albus* L.; *L. angustifolius* L.; yellow lupine, *L. luteus* L.; Florida velvetbean, *Stizolobium deeringianum* Bort.; and castor bean, *Ricinus communis* L., are also susceptible hosts of *C. cassiicola*.

SYMPTOMATOLOGY.--Lesions on the upper surface of azalea leaves first appear as circular to subcircular reddish purple spots. Under favorable conditions these spots enlarge rapidly, becoming subcircular to irregular or angular, depressed, with light brown to tan centers, reddish purple margins, and measure up to 15 mm diam (Fig. 1-A). The reverse surface of the lesion is brown at first, gradually becoming light brown to tan in the center and surrounded by a brown margin (Fig. 1-B). Diseased leaves usually abscise prematurely.

Lesions on the leaves of hydrangea are circular to subcircular, varying from minute reddish purple spots to those measuring 3 to 5 mm diam, with tan centers and reddish purple margins (Fig. 1-C). These symptoms are frequently confused with those caused by *Cercospora hydrangeae* Ell. & Ev. However, lesions produced by this fungus are usually larger.

CONTROL.--Based on recommendations by Bolick (2), maneb (80% manganous ethylenebis=[dithiocarbamate]) applied at a rate of 2 lb/100 gal of water with 1 pint of Triton B-1956 added/100 gal of water as a spreader-sticker, has proved effective in controlling *C. cassiicola* of hydrangea. Similar applications of zineb at 7-10 day intervals have proved effective in controlling *Corynespora* leaf spot of azaleas. The disease is far less a problem when plants are properly spaced and adequately ventilated.

---

Presently Assistant Plant Pathologist, University of Georgia, College of Agriculture, Coastal Plain Experiment Station, Tifton, Georgia.

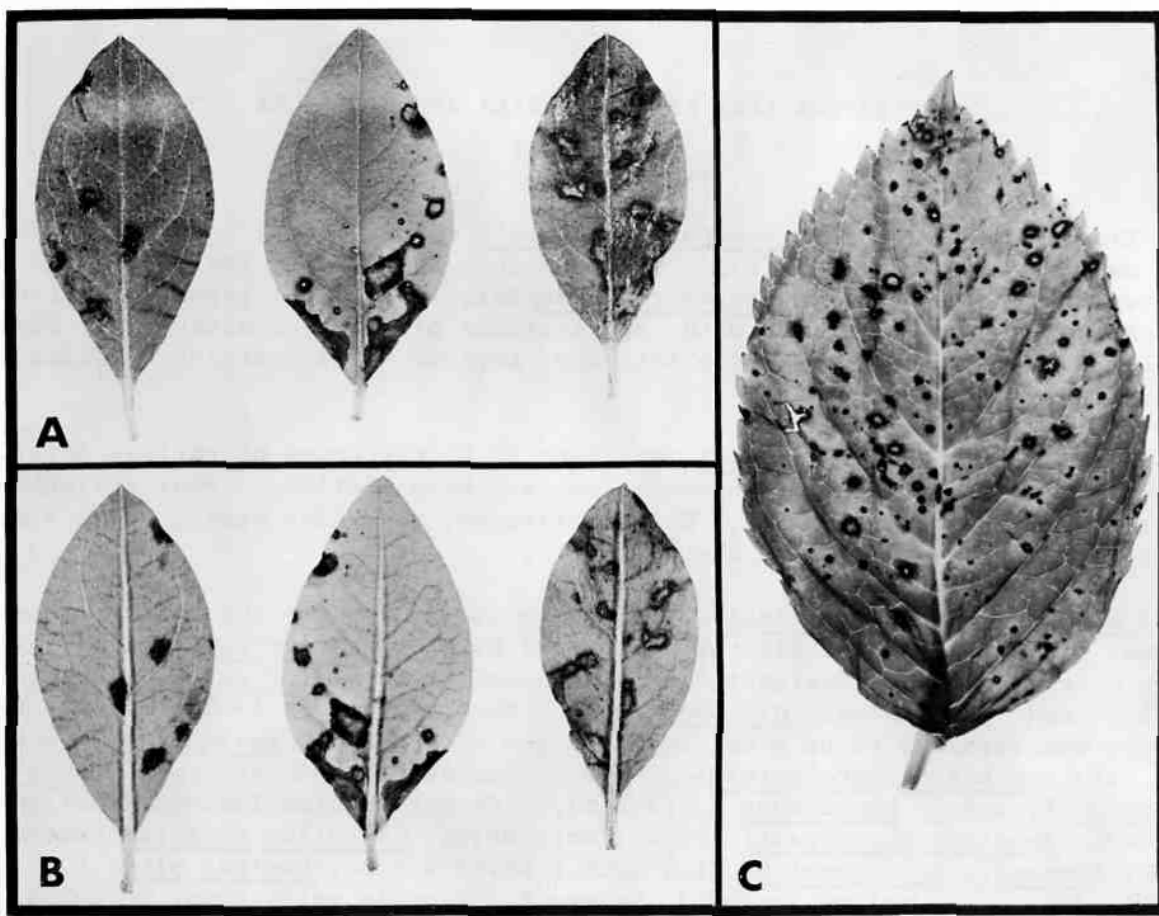


Fig. 1. *Corynespora* leaf spot. A) Upper surface of azalea leaves. B) Lower surface of azalea leaves. C) *Hydrangea macrophylla* leaf.

#### Literature Cited

1. Bolide, J. H. 1960. Diseases of floricultural crops, p. 85. In Twenty-third biennial report for the period July 1, 1958-June 30, 1960. State Plant Board of Florida. Vol. II, Bull. 14.
2. Bolick, J. H. 1962. Diseases of floricultural crops, p.101. In Twenty-fourth biennial report for the period July 1, 1960-June 30, 1962. Florida Dept. of Agr., Div. of Plant Industry. Bull. Vol. 1, No. 2.
3. Jones, J. P. 1961. .'- leaf spot of cotton caused by *Corynespora cassiicola*. *Phytopathology* 51:305-308.
4. Olive, L. S., D. C. Bain, and C. L. Lefebvre. 1945. A leaf spot of cow-pea and soybean caused by an undescribed species of *Helminthosporium*. *Phytopathology* 35:822-831.
5. Spencer, J. A., and H. J. Walters. 1962. Study of variations in *Corynespora cassiicola*. *Phytopathology* 52:28 (Abstr.)
6. Stone, W. J., and J. P. Jones. 1960. *Corynespora* blight of sesame. *Phytopathology* 50:263-266.
7. Sobers, E. K. 1966. A leaf spot disease of azalea and hydrangea caused by *Corynespora cassiicola*. *Phytopathology* (in press).